

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of treatment and/or prevention of cardiovascular diseases in patients comprising administering an effective amount of at least one agent inhibitor of PKC ~~which reduces or inhibits the expression and/or activity~~ of protein kinase C- α (PKC- α).

2. (previously presented) The method of claim 1, wherein said cardiovascular diseases which affect the filing state and tonus of the circulatory system and the output performance of the heart are selected from the group consisting of coronary heart disease, myocardial infarction and stroke.

3-8. (cancelled).

9. (previously presented) The method of claim 1, wherein said agent is selected from the group consisting of at least one nucleic acid which reduces or inhibits the expression of the protein kinase C- α gene, a vector containing said nucleic acid, a host cell containing said vector, a substance which reduces or inhibits the expression of protein kinase C- α , a substance which inhibits the translocation of protein kinase C- α , an antagonist of protein kinase C- α activity, and an inhibitor of protein kinase C- α activity.

10. (withdrawn) The method of claim 9, wherein said nucleic acid can inhibit the expression of the gene of human protein kinase C- α in a host cell in anti-sense orientation to a promoter.

11. (withdrawn) The method of claim 9, wherein said nucleic acid is selected from the group consisting of

a) a nucleic acid coding for human protein kinase C- α , or a fragment thereof;

b) a nucleic acid which is complementary to the nucleic acid of group a), or a fragment thereof;

c) a nucleic acid which is obtainable by substitution, addition, inversion and/or deletion of one or more bases of a nucleic acid of group a) or b), or a fragment thereof; and

d) a nucleic acid which has more than 80% homology with a nucleic acid any of group a) through c), or a fragment thereof.

12. (withdrawn) The method of claim 11, wherein said fragment of the nucleic acid of any of group a) through d) comprises at least 10 nucleotides.

13. (withdrawn) The method of claim 9, wherein said nucleic acid is a DNA or a RNA.

14. (withdrawn) The method of claim 9, wherein said nucleic acid or fragment thereof is inserted in a vector under the control of at least one expression regulating element in antisense orientation thereto.

15. (withdrawn) The method of claim 14, wherein said vector is selected from the group consisting of a plasmid, a cosmid, a bacteriophage or a virus.

16. (withdrawn) The method of claim 14, wherein said expression regulating element is selected from the group consisting of a promoter, a ribosome binding site, a signal sequence or a 3' transcription terminator.

17. (withdrawn) The method of claim 14, wherein said vector is contained in a host cell.

18. (withdrawn) The method of claim 17, wherein said host cell is a mammalian cell.

19. (withdrawn) The method of claim 9, wherein said substance which inhibits or reduces the expression of protein kinase C- α is an activator of protein kinase C- α .

20. (withdrawn) The method of claim 19, wherein said activator is a phorbol compound.

21. (withdrawn) The method of claim 20, wherein said phorbol compound is selected from a group consisting of 12-O-tetradecanoylphorbol-13-acetate (TPA) and phorbol-12,13-dibutyrate (PDBu).

22. (withdrawn) The method of claim 9, wherein said inhibitor of protein kinase C- α activity is an antibody which reacts with protein kinase C- α .

23. (withdrawn) The method of claim 22, wherein said antibody is selected from a group consisting of a monoclonal antibody and a polyclonal antibody.

24. (withdrawn) The method of claim 22, wherein said antibody is a humanized antibody.

25. (previously presented) The method of claim 9, wherein said inhibitor of protein kinase C- α activity changes the phosphorylation state of protein kinase C- α .

26. (previously presented) The method of claim 25, wherein said inhibitor is tocopherol.

27. (withdrawn) The method of claim 9, wherein said antagonist is selected from a group consisting of a derivative and an analogue of protein kinase C- α .

28. (currently amended) The method of claim 1, wherein ~~said agent which reduces or inhibits the expression and/or activity of~~ the inhibitor of protein kinase C- α is an agent which reduces or inhibits the expression and/or activity of protein kinase C- β .

29. (withdrawn) The method of claim 28, wherein said agent is cyclosporine A.

30. (currently amended) The method of claim 1, wherein ~~said agent which specifically reduces or inhibits the expression and/or activity of~~ the inhibitor of protein kinase C- α is administered in combination with an agent which reduces or inhibits the expression and/or activity of protein kinase C- β .

31. (previously presented) The method of claim 30, wherein said agent which reduces or inhibits the expression and/or activity of protein kinase C- β is selected from the group consisting of at least one nucleic acid which reduces or inhibits the expression of the protein kinase C- β gene, a vector containing said nucleic acid, a host cell containing said vector, a substance which reduces or inhibits the expression of protein kinase C- β , a substance which inhibits the translocation of protein kinase C- β , an antagonist of protein kinase C- β activity, and an inhibitor of protein kinase C- β activity.

32. (withdrawn) The method of claim 31, wherein said nucleic acid is selected from the group consisting of

- a) a nucleic acid coding for human protein kinase C- β , or a fragment thereof;
- b) a nucleic acid which is complementary to the nucleic acid of group a), or a fragment thereof;
- c) a nucleic acid which is obtainable by substitution, addition, inversion and/or deletion of one or more bases of a nucleic acid of group a) or b), or a fragment thereof; and
- d) a nucleic acid which has more than 80% homology with a nucleic acid of any of group a) through c), or a fragment thereof.

33. (withdrawn) The method of claim 32, wherein said fragment of the nucleic acid of any of group a) through d) comprises at least 10 nucleotides.

34. (withdrawn) The method of claim 31, wherein said nucleic acid is a DNA or a RNA.

35. (withdrawn) The method of claim 31, wherein said nucleic acid or fragment thereof is inserted in a vector under the control of at least one expression regulating element in antisense orientation thereto.

36. (withdrawn) The method of claim 35, wherein said vector is a plasmid, a cosmid, a bacteriophage or a virus.

37. (withdrawn) The method of claim 35, wherein said expression regulating element is a promoter, a ribosome binding site, a signal sequence or a 3' transcription terminator.

38. (withdrawn) The method of claim 35, wherein said vector is contained in a host cell.

39. (withdrawn) The method of claim 38, wherein said host cell is a mammalian cell.

40. (withdrawn) The method of claim 31, wherein said inhibitor of protein kinase C- β activity is an antibody which reacts with protein kinase C- β .

41. (withdrawn) The method of claim 40, wherein said antibody is a monoclonal or a polyclonal antibody.

42. (withdrawn) The method of claim 40, wherein said antibody is a humanized antibody.

43. (previously presented) The method of claim 31, wherein said inhibitor of protein kinase C- β activity changes the phosphorylation state of protein kinase C- β .

44. (withdrawn) The method of claim 31, wherein said antagonist is a derivative of protein kinase C- β or an analogue of protein kinase C- β .

45-55. (cancelled)

56. (withdrawn) The method of claim 11, wherein said fragment of the nucleic acid of any of group a) through d) comprises at least 50 nucleotides.

57. (withdrawn) The method of claim 11, wherein said fragment of the nucleic acid of any of group a) through d) comprises at least 200 nucleotides.

58. (withdrawn) The method of claim 18, wherein said host cell is a human cell.

59. (withdrawn) The method of claim 32, wherein said fragment of the nucleic acid of any of group a) through d) comprises at least 50 nucleotides.

60. (withdrawn) The method of claim 32, wherein said fragment of the nucleic acid of any of group a) through d) comprises at least 200 nucleotides.

61. (withdrawn) The method of claim 39, wherein said host cell is a human cell.